

### **REMARKS**

Applicant respectfully requests reconsideration. Claims 1-27, 29-41 and 43-46 were previously pending in this application. No claims have been amended. As a result, claims 1-27, 29-41 and 43-46 are pending for examination. No new matter has been added.

### **Rejections Under 35 U.S.C. § 103**

The Examiner rejected claims 1-27, 29-41 and 43-46 under 35 USC § 103(a) as being unpatentable over Wakefield (WO 03/040270 A2). Applicant respectfully requests reconsideration.

The Examiner has argued on page 4 of the Office Action that “a reference is good not only for what it teaches but also for what one of ordinary skill might reasonably infer from the teachings....In addition, a reference can be used for all its realistically [*sic*] teachings and is not limited to the disclosure in its preferred embodiments” (emphasis added).

Applicant respectfully disagrees with the conclusion reached by the Examiner. While it is settled law that a reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill the art, Merck & Co. v. Biocraft Laboratories, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir. 1989), cert. denied, 493 U.S. 975 (1989) (emphasis added), Applicant respectfully disagrees that that Wakefield reasonably suggested the claimed invention to the skilled person. As previously stated in the response to the previous Office Action, cerium oxide is typically included as an additive in fuel to act as a catalyst in the reduction of toxic exhaust gases produced on combustion of a fuel. For diesel engines, the cerium oxide also burns off particulates which accumulate in the traps of diesel engines after combustion of diesel fuel (see the paragraph bridging pages 1 and 2 of the present application). Detergents are added to fuels to reduce or prevent the accumulation of hydrocarbon deposits in the combustion chamber and/or intake valves of an engine.

It has been found that by adding both cerium oxide and a detergent to a fuel prior to the introduction of the fuel into a vehicle there is an improvement in fuel economy. The improvement is based on the surprising and unexpected effect that the detergent has on the dispersibility of the cerium oxide in the fuel. As shown in Examples 2 to 4 of the present application, the addition of both a detergent and a cerium oxide results in the prevention of, or a significant reduction in, solid separation of the fuel additive from the fuel.

A person of ordinary skill in the art would not expect or predict detergent to have any effect on the dispersibility of the cerium oxide. In particular, a person of ordinary skill in the art referring to Wakefield (particularly page 9, lines 10-11) would understand that the suggestion to add detergent in fuel compositions is for its typical use, i.e. to reduce or prevent the accumulation of hydrocarbon deposits in the combustion chamber and/or intake valves of an engine. There is no disclosure or suggestion in Wakefield of adding both cerium oxide and a detergent to a fuel prior to the introduction of the fuel into a vehicle. In fact, there is no disclosure or suggestion in Wakefield that would lead a person of ordinary skill in the art to predict that such a combination of cerium oxide particles and detergent would have any beneficial effect on the cerium oxide particles, especially given the difference in the chemical characteristics of cerium oxide compared to hydrocarbon deposits. Accordingly, Wakefield would not reasonably suggested to one having ordinary skill the art to add both cerium oxide and a detergent to a fuel prior to the introduction of the fuel into a vehicle. Thus the person of ordinary skill in the art would not have had a reason to make the claimed invention.

Applicant also submits that the Examiner has not exhibited how and why a person of ordinary skill in the art referring to the teachings of Wakefield would be able to arrive at the claimed invention. In particular, Applicant submits that the Examiner has not provided a sufficient showing that the allegedly inherent feature is necessarily present in Wakefield. To establish inherency, Wakefield must make clear that the "missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." MPEP 2112.IV. Applicant further submits that "in relying upon the theory of inherency, the

Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” MPEP 2112.IV. The Examiner has not met this burden.

Without any objective evidence or cogent technical reasoning to support the conclusion of inherency, Applicant submits that the Examiner is attempting to establish inherency by probabilities and possibilities. In particular, there is no disclosure or teaching anywhere in Wakefield that would lead a person of ordinary skill in the art to combine a detergent with particles of cerium oxide, or that there would be any benefit in doing so. Applicant also submits that the Examiner has used impermissible hindsight. In particular, the applicant submits that the Examiner has not provided any evidence that, from the teachings of Wakefield, it would be within the level of a person of ordinary skill in the art at the time the claimed invention was made to add both cerium oxide particles and a detergent to a fuel prior to the introduction of the fuel into a vehicle with a reasonable expectation of the beneficial effect described above, and that it does not include knowledge gleaned only from Applicant’s disclosure. Accordingly, the invention claimed in the present application is not obvious from Wakefield.

In view of the above, Applicant respectfully submits that all of the objections have been overcome and that the application is in order for allowance.

CONCLUSION

In view of the foregoing, the present application is believed to be in condition for allowance. A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the application in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, any necessary extension of time is hereby requested. If there is a fee occasioned by this response, including an extension fee, the Director is hereby authorized to charge any deficiency or credit any overpayment in the fees filed, asserted to be filed or which should have been filed herewith to our Deposit Account No. 23/2825, under Docket No. M0106.70021US00.

Dated: May 25, 2010

Respectfully submitted,

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